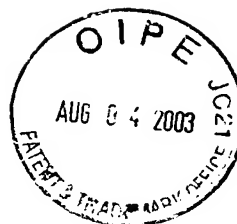


SEQUENCE LISTING



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AUG 07 2003
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<110> THE JOHNS HOPKINS UNIVERSITY
GOGGINS, Michael G.
UEKI, Takashi

<120> DIFFERENTIALLY METHYLATED SEQUENCES IN PANCREATIC CANCER

<130> JHU1700-1

<140> US 10/084,555

<141> 2002-02-25

<150> US 60/271,268

<151> 2001-02-23

<160> 118

<170> PatentIn version 3.1

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 <213> Homo sapiens

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 catagcctcc tacagtgaga aacgcccccc acccgacgct gcgctcatct gtgtccccgc 180
 tggtgcccgg gctctggtat ccacttgccg gccctatgtg gtggggatcc acccagagcc 240
 cagcgtcaag ttatacgggc gcttcaactca gcgtcagcca agaccagga agcgcttctt 300
 gccgtttagg agacgtctgc aagagataaa aagctagccc acgatccacc cacaatcttc 360
 gtgtccccgg g 371

<210> 31
 <211> 179
 <212> DNA
 <213> Homo sapiens

<400> 31
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 tgggtagagc atccttcggg cactgccgtt cgtcccaaaa agaagaccac cgcgggggtcc 120
 cagggccacg gcgaggacgg gactgggtca gattccggac aggcggtcct ggccccggg 179

<210> 32
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 <212> DNA
 <213> Homo sapiens

<400> 32
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 agaaggcgag gatgcgcgcg tacttcgtgt ccttgggtctc atcgtcacgt gtgagtatcg 180
 accaggtcat catcgcacgt ggtaccatag tggaagtagt tggcaaacctc gctagagtct 240
 gctggaggaa cgagcccgcc gtaggacgga cacacctgag tgccccctccc acgcgagccc 300
 aaagcgggtg cagggcacct ccaccacat ttctggccaa agttcccatt tgaggccccg 360
 cctctcctct gcgcagtctt agagactggc gaggcacgcg caaacgccct cttccctgag 420
 acctgacccc acccaccac ccggg 445

<210> 33
 <211> 357
 <212> DNA
 <213> Homo sapiens

<400> 33
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 ctcccattta tagctcagtt tccactgagc gcagtccctc taggacctgg gctgagcaag 120
 tttcttcac tctctccctt cctcctcct cacccttgc ctgccccca accccggcag 180
 ggcgaggtg tccaaccag ccgggacccc ctccctctc gaaccaggt gttccggctc 240
 ccagaccca attgagctgg gggcgccac ccgccccggg atcccgccct gcgtcccca 300
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<210> 34
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 <212> DNA
 <213> Homo sapiens

<400> 34
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 cctggccagg gacggggctg tccgaactgc cgtccagatt cccaaggga gacaaagacc 120
 cgaaacacag ctcaaagttt ccgagagcag tcacagcggg gccagggact ccagaagtgt 180

cagctccaac gactccagag ctgcacactg gcctctattc cccacccgcaa agccccagag 240
 ccgcagagagac ttccaaggca gccggagagg agagggccca ccgagcacta cggggggtgc 300
 gcaagccccg gg 312

<210> 35
 <211> 372
 <212> DNA
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<400> 35
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 ctgacgtctg ggctggggag gagcgggtcc gagcgaggac ggagagggga cagagggaaa 180
 gggagggcggg tgtcttctc aggaatttga gctggggatc tgcctcctgg ccattgcagt 240
 ccttttagcat cctcgccgcg cctcgagcgc gctggaggct ccgaggtgc gccctcccag 300
 ggcctgatgcc gcgtcctgct ccgcggttct gggacgtcgg ggacaaaagt ggagggagacg 360
 ggagagccccg gg 372

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 gccccgcgcc tcctcactta ccttgccctt agctatcaat tccatgatgt agccaaattc 180
 actcatctcc ccagactccg acatgtttac accccttcac aaactctgga ggaccgacgc 240
 ggggtgtatcg aatttgctct ttcttttctc tttttctggt tttagtctga gttttgccga 300
 gctcccgcgc cataagctgt taaccaggaa aagaggggaa gcgcggggga aagcaagaag 360
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<210> 37
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 <212> DNA
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 tgtcttcggg gaaaaccaagt ctgagtgagc gctgaagggg agtgtgcgga gcgtgccgtg 180

caccccgagc ccccgccctc attgcctctc gcctctctcc acctgcccc a tgatctgcgc 240
 cagggaccgg tcctctcccg tccgcaggct gtctaggtgg ccgttctggt ttgctgggac 300
 ccccggg 307

<210> 38
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 38
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 ggcggggaag ggcgatctga cgatcagga gttgcgcccc tctctctggg cctcgtgaag 180
 gaacaagagc aattacagcg ctgggccggc cacgtagtcc tggggctagg tgggccaat 240
 gctccgggccc ggggggctgg agcgcggagg ctggagaggg aggaggaccc tccgcggctc 300
 caggtctccc agctggaggc tcacgcccg g 331

<210> 39
 <211> 304
 <212> DNA
 <213> Homo sapiens

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 gagaaggagg caggagtga ggcggaagga gtgggcaatc agcggcggga cgagagtgtg 120
 tcttcgggga aaccaagtct gagtgcgcgc tgaaggggag tgtgcggagc cgtgccgtgc 180
 accccgagcc ccccgccctca ttgcctctcg cctctctcca cctgccccat gatctgcgcc 240
 agggagccgg tcctctcccg tccgcagctg tctaggtggc cggttctggtt tgctgggccc 300
 cggg 304

<210> 40
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 40
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 ttccctggcg cagatcatgg ggcagggtga gagaggcgag aggcaatgag gcggggggggc 120
 tcgggggtga cggcacgctc cgcacactcc cctccagcgc tcaactcagac ttggtttccc 180
 cgaagacaca ctctcgtccc cgccgcgtga ttgcccactc cttccgctg cactccagcc 240
 tccttctcac ctttctgctg agcgcacagg cggtgcgcaa gtcggcaccg gtgcgcaccg 300

gcccggg

307

<210> 41
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 <212> DNA
 <213> Homo sapiens

<400> 41
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 gagaaggagg caggagtgcg gccggaagga gtgggcaatc agcggcggga cgagagtgtg 120
 tcttcgggga aaccaagtct gagtgagcgc tgaaggggag tgtgcggagc cgtgccgtgc 180
 accccagagcc ccccgctca ttgcctctcg cctctctcca cctgccccat gatctgcgcc 240
 agggagccgg tctctcccg tccgcagctg tctaggtggc cgttctgggt tgcctgggcc 300
 cggg 304

<210> 42
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<220>
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 ttcctgggct ggggacagtg aggtcatcgc tgcccatcct ggagctctgg ctcccttcgg 180
 gtacctgttc cctctccag agagaccccc agctgcatgc aggcctagtg ggctccacgg 240
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 gagcaggggg tttgagccct tgtggaaatc tggggaggca ctgcttctcc ctccatgtga 420
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<210> 43
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<220>
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<400> 43

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<210> 44
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<220>
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<400> 44
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<210> 45
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<220>
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<400> 45
 ctccctccaa ataaatactt ac 22

<210> 46
 <211> 19
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<220>
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<400> 46
 agagaggagt ttagattgg 19

<210> 47
 <211> 21
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<220>
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<400> 47
 caaaaaaact aaaacctcaa c 21

<210> 48
 <211> 24
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<220>
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<400> 48
 tggataaagg atgtttgggg ttg 24

<210> 49
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<400> 49
 cgcctcccccctt acccctaaat cc 22

<210> 50
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<400> 50
 actcccccttc actttatctc 19

<210> 51
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<220>
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<400> 51
 attatttttag tagaggtata taag 24

<210> 52
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<220>
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<400> 52
 ccaacccac ccttcaac 18

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<400> 53
 aagagagggt tggagagtag 20

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<400> 54
 ccccttaaaaa aaaaatcaaa aatc

24

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<400> 55
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21

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26

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<400> 57
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23

<210> 58
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<220>
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<400> 58
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25

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<400> 59
 caccctcac ttactaaaa c

21

<210> 60
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<220>
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<400> 60
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23

<210> 61
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<400> 61
 accraacaaa aaacataaaa aaac

24

<210> 62
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<400> 62
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24

<210> 63
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<400> 63
 ttattagagg gtgggcgga tcgc

24

<210> 64

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<400> 65
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<210> 66
 <211> 26
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<220>
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<400> 66
 gttttttttt ggatttttgt tttttg 26

<210> 67
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<220>
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<400> 67
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<210> 68
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<220>
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<400> 68
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<210> 69
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<400> 63
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29

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23

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<400> 71
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22

<210> 72
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<400> 72
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21

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<400> 73
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20

<210> 74
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<223> PCR primer

<400> 74

ttaataggaa gagtggatag tg

22

<210> 75

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<223> PCR primer

<400> 75

tctataaatt actaaatctc ttca

24

<210> 76

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ttaataggaa gagcggatag c

21

<210> 77

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<223> PCR primer

<400> 77

ctataaatta ctaaatctct tcg

23

<210> 78

<211> 25

<212> DNA

<213> Artificial sequence

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<223> PCR primer

<400> 78

taatttttagg ttagaggggtt attgt

25

<210> 79

<211> 20

<212> DNA

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<220>
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 <400> 80
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 <210> 81
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 <220>
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 <400> 81
 taactaaaaa ttcacctacc gac 23

 <210> 82
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 <400> 82
 ggaggatagt tggattgagt taatggt 27

 <210> 83
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 <210> 84
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<220>
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<210> 85
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<210> 86
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<220>
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<210> 87
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<220>
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<210> 88
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<220>
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 <400> 88
 tttcgacgtt cgtacctttt cgc 23

<210> 89
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<220>

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<400> 89

gcactcttcc gaaaacgaaa cg

22

<210> 90

<211> 82

<212> DNA

<213> Artificial sequence

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<212> DNA

<213> Artificial sequence

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<400> 91

ttcacaaacct caaatctact tca

23

<210> 92

<211> 81

<212> DNA

<213> Artificial sequence

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<400> 92

ggggttgaggt tttttggttag c

21

<210> 93

<211> 80

<212> DNA

<213> Artificial sequence

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ctacttcgcc taacctaacg

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<210> 94

<211> 25

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 94
ggtgttggtta aatgtaaata atttg 25

<210> 95
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<400> 95
aaaaaaaaac acctaaaact ca 22

<210> 95
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<212> DNA
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<400> 95
aatcgaattt gtcgtcgttt c 21

<210> 97
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<220>
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<400> 97
aaataaataa ataaaaaaaaa acgcg 25

<210> 98
<211> 26
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<220>
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<400> 98
gaattgagat gattttaatt ttttgt 26

<210> 99
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<220>
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<400> 99
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<210> 100
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<220>
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<400> 100
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<210> 101
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<400> 101
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<210> 102
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<220>
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<400> 102
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<210> 103
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<220>
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<400> 103
 ctaaaaaac aaacaaaaca tcca 24

<210> 104
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<220>
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<400> 104

gtgggtagag gaatttaggc

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<210> 105
 <211> 19
 <212> DNA
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<220>
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<400> 105
 aaaacgaag aaacgtccg

19

<210> 106
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
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<400> 106
 acttcatta aaaacaacta c

21

<210> 107
 <211> 23
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<220>
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<400> 107
 caaccccaaa cccacaacca taa

23

<210> 108
 <211> 22
 <212> DNA
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<220>
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<400> 108
 gacccccgaa cgcgcacct aa

22

<210> 109
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<220>
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<400> 109
 ttacaaaaaa ccttccaaat aca

23

<210> 110
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 <212> DNA
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<220>
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<400> 110
 tgcacaaaaac cttccgaata cg

22

<210> 111
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<400> 111
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23

<210> 112
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<220>
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<400> 112
 ttccgacttc ttcgcttcg

19

<210> 113
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<220>
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<400> 113
 ccccccaaaa accccacctc a

21

<210> 114
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 <212> DNA
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<220>
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<400> 114
 ccgaaaaccc cgctctg

17

<210> 115
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<220>
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<400> 115
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21

<210> 116
 <211> 23
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Amplification primer

<400> 116
 caacttcaca aaaaaaatca atc

23

<210> 117
 <211> 18
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Amplification primer

<400> 117
 tgtggggagt tatcgagc

18

<210> 118
 <211> 19
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Amplification primer

<400> 118
 gccttcgcga aaaaaatcg

19